**Commonwealth of Kentucky**
**Division for Air Quality**

# PERMIT APPLICATION SUMMARY FORM

Completed by: Ralph E. Gosney

GENERAL INFORMATION:

| | |
|---|---|
| Name: | Trus Joist, A Weyerhaeuser Business |
| Address: | 610 Trus Joist Lane<br>Chavies, Kentucky 41727 |
| Date application received: | September 25, 2003 |
| SIC/Source description: | 2493 |
| EIS #: | 021-193-00097 |
| Application log number: | 56024 |
| Permit number: | V-03-008 R1 |

APPLICATION TYPE/PERMIT ACTIVITY:

[ ] Initial issuance
[x ] Permit modification
__Administrative
x_Minor
__Significant
[ ] Permit renewal

[ ] General permit
[ ]Conditional major
[x] Title V
[x] Synthetic minor
[x] Operating
[ ] Construction/operating

COMPLIANCE SUMMARY:

[ ] Source is out of compliance
[x] Compliance certification signed
[ ] Compliance schedule included

APPLICABLE REQUIREMENTS LIST:

[ ] NSR
[ ] PSD
[ ] Netted out of PSD/NSR
[x] NSPS
[ ] NESHAPS
[x ] SIP
[ ] Other
[x] Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)

MISCELLANEOUS:

[ ] Acid rain source
[ ] Source subject to 112(r)
[ ] Source applied for federally enforceable emissions cap
[ ] Source provided terms for alternative operating scenarios
[ ] Source subject to a MACT standard
[ ] Source requested case-by-case 112(g) or (j) determination
[ ] Application proposes new control technology
[x] Certified by responsible official
[ ] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[ ] Pollution Prevention Measures
[ ] Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

| Pollutant | Actual (tpy) | Potential (tpy) |
|---|---|---|
| $PM/PM_{10}$ | 176 | 241 |
| $SO_2$ | 5.6 | 8.9 |
| NOx | 152 | 241 |
| CO | 154 | 243.7 |
| VOC | 50 | 127 |

**SOURCE DESCRIPTION:**

A TV operating permit application received from Trus Joist, A Weyerhaeuser Business, on December 04, 1998 was considered administratively complete on February 12, 1999. The facility currently operates under permit numbers C-93-111 revision 2, S-96-256, S-97-033 and the most recent VS-02-008. The plant consumes more than 200,000 cords of "low grade" timber annually; in the manufacture of Laminated strand Lumber (LSL), Timber Strand and TJI wood I-joist. The LSL process includes whole logs (debarked), cut in length, and processed into thin, long strands. The strands are then dried, coated with polyurethane MDI resin, and formed into a rough billet. Lastly, the billet is pressed into a billet approximately 8-feet wide by 48-long and several inches thick using steam injection technology. The general processing runs through the log and strand preparation, heating/energy, blending-forming-press, and finishing areas, which is tied to the TJI production department.

**Laminated strand Lumber (LSL), Timber Strand Processes**

*Log prep:*
Logs are received, scaled and stored. They are later debarked, cut in length

*Strand prep:*
The debarked logs are sent to two stranders that process the logs into strand materials. They are then stored in storage bins for an hour, and conveyed into triple tiered dryers. Tied to this is the Baghouse #1, Cyclones #'s 1-3 for the residual collection, as well as the Electrified Filter Bed (EFB) to control particulate emissions from the furnace and the drying process.

***Heat/Energy area**:*
The heat is provided by three (3) 80 MMBTU/hr wood fired-furnaces, each containing two firing cells. Bark, chips, and other wood material that is recycled from the Timber strand process and controlled by the EFB, fire the furnace. Propane is used as emergency backup fuel in an auxiliary 35 MMBTU/hr furnace.

*Blending, Forming and Pressing Area:*
The process involves the spraying of polyurethane (MDI) resin and wax (water inhibitor) on the metered strands from the dryers. The outputs; completed mats are cut into sections and conveyed into steam injection press for compaction. Baghouses #'s 2 and 3 are use as collection control devices.

*Finishing area:*
The automated line, consist of wood hammermills (woodhogs), sander, ripsaw and dimensioning

saws. Dust collected at this end is used for the furnace system, through a supply line from the baghouse #'s 4, 5, 6 and Cyclone #'s 4,5 and 6.

**TJI production involves approximately 90,000,000 lineal feet of I-joist per year.**
*Wood processing includes:*
Rip timber strand billets into flanges, scarf finger-joints to join short sections of flange stock into usable length; serrate web stock to provide web joint, profile edges of webs to match routed flange. Route flanges to insert profiled webs, which cuts I-joist to size.

*Adhesive application includes*:
Fingers-joints cured by RF press, web joints cured in oven, route joints cured in oven and I-joist oven (heated by propane or natural gas).

*Sealing includes:*
Combination of fungicide and moisture sealers applied to the finished joist, drying in TJI oven.

**EMISSION AND OPERATING CAPS DESCRIPTION:**
Emission of carbon monoxide, particulate matter and nitrogen oxides shall not exceed 245 tons during any consecutive twelve (12) month rolling total.

OPERATIONAL FLEXIBILITY:
Not Applicable